

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014952**Date Inspected:** 14-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** ZPMC and ABF**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

Tower heavy dock

Caltrans QA inspector observed six ZPMC workers in process of FCAW CJP welding on the cross bracing brackets. The cross bracing brackets is located at the elevation 65m and 77m diaphragm sections that connected to skin plate A and B of north, east, south and west tower lift #2. The FCAW process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

During the quality assurance inspection, Caltrans QA discovered the following three issues. The issues have been informed to SMR Mr. Thomas Ho for follow up.

1st issue: The ZPMC workers installed the shim plates to the open gaps between the base plates to external and internal side bearing stiffeners after moved to the vassal. The bearing stiffeners located on A, B, C, D and E skin plates of west and north tower lift #1. The shim plate size has 0.5mm and 1mm. Some of open gap has found the shim plate has not enough shim plate or installed not properly. Also, few open gap areas have been caulked before Caltrans QA inspection. Caltrans QA informed ZPMC QC that shim plate areas have been accepted by Caltrans prior caulking. The open gap issue has been filed a NCR #0708 on 5-30-10.

2nd issue: The clamps used to secure the grating have not been installed properly. The gratings are located at elevation 9m thru 47.6m interior diaphragm of north, east, south, west tower lift#1. According to RFI 733 the clamp unit is fixed on the grating support and grating. However, the clamps installed on the grating seem not a suitable size attached the bracket and secured the grating. The bolt of the clamp will loose in the future.

3rd issue: The splices plate installed at the wrong direction or location after paint. This issue has been found by

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ABF next week. ABF QC and Caltrans QA inspector have verified the splice this afternoon. However, 60% splice plate can't inspect due to lack of scaffolding. The following is the splice list after verifying.

Strut connection splices:

1. N, W & S Shafts, Skin A. Splices re-instated internally, 18m, 23m, 28m are not checked.
2. N, W & S Shafts, Skin A. Splices re-instated external (protruded), all elevations not checked, lack of scaffolding.
3. N, W & S Shafts, Skin E, check completed, wrong splices corrected.
4. East Shaft, internal and external is not checked and no scaffolding, ZPMC is working on this shaft today.

Long Stiff splices in L1 shafts:

1. 4 Shafts, bottom half in existing position of shafts checked, i.e. ½ of Skin B, ½ of skin D and full skin C. Skin A & E not checked also.
2. There are 9 splices plates (8 in west and 1 in north) without stamped ID, it may be re-instated wrong.

Interior L1/L2 connection splice

1. N & W shafts interior splice checked in shop, now moved to jetty.
2. E & S shafts re-instatement is still on-going in shop, not checked yet.
3. There are 7 splices (7 in west shaft interior connection) without stamped ID, it may be re-instated wrong.

CLOSING STATEMENT

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

As notes within report above

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Tohmas Ho 15002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
